

ENTOMOLOGY.—*Six new species of beetles of a eumolpid genus new to the West Indies.*<sup>1</sup> DORIS H. BLAKE. (Communicated by S. F. BLAKE.)

The genus *Alethaxius* (Coleoptera: Eumolpidae), under which I herein tentatively place six new West Indian species, was originally described by Chapuis<sup>2</sup> as *Aletes*, a preoccupied name later changed by Lefèvre<sup>3</sup> to *Alethaxius*. These West Indian species do not entirely correspond with Chapuis's description drawn up from a single species from Colombia but seem closer to four species later described by Lefèvre,<sup>4</sup> also from Colombia. According to Chapuis, *Aletes* (= *Alethaxius*) is closely related to *Colaspis*, but in *Aletes* the antennae are somewhat more compressed (in the West Indian group the distal joints are shorter and thicker), the eyes are more developed (in the West Indian species the eyes are very prominent), and the form of the pronotum is different (in the West Indian group the prothorax is large, the sides varying from undulate and even prominently toothed to simply arcuate and entire). Moreover, in both West Indian species and those described by Lefèvre there is a marked difference between the sexes, the females having a peculiar elytral development in the form of nodules or ridges below the humeri. In another respect some of the West Indian species resemble two species later described by Lefèvre, i. e., the femora are toothed. In Lefèvre's species the posterior femora alone are described as toothed. This character appears to be a variable one, since while the teeth are prominent on all femora in three of the West Indian species, in one they are only weakly developed and in another appear only in the posterior femora. In one species the teeth are entirely lacking. Since Lefèvre, Jacoby has contributed most of the remaining species to the genus, describing numerous Central and South American species that more or less doubtfully he has assigned to *Alethaxius*. Bowditch has added

three from South America. The present group may eventually prove too distinct to be included in this genus. It appears to be common to the West Indies, occurring so far as is already known in Cuba, Puerto Rico, and Hispaniola, and is singularly constant in general characteristics. In fact, the males of a species collected on the summit of Pico Turquino in eastern Cuba are not readily distinguishable from the males of two species found in the mountains of central Dominican Republic except by their quite different genitalia. The females, on the other hand, have distinctly different elytral nodulation. The females are so unlike the males in this group that it is probable that future entomologists may describe each as specifically distinct unless the sexes are collected together.

*Alethaxius hispaniolae*, n. sp.

Fig. 1

Female about 4 mm long, robust, dark bronze shining with aeneous or coppery lights, legs, mouthparts, and undersurface reddish brown, basal joints of antennae pale, apices of last five joints dark; densely punctate; prothorax with undulate or obtusely toothed margin; elytra with small raised tubercles below the humeri; femora sharply toothed.

Male about 3.3 mm long, above bright shining green, elytra entirely lacking tubercles.

Head with prominent, widely separated eyes; a tumidity about base of antennal sockets; median area on vertex polished and with a slightly impressed line, from this area radiating lines of punctures producing a wrinkled effect over occiput and about eyes. Antennae extending below humeri, first two joints swollen, 3-6 slender, 7-11 thickened and with dark apices. Prothorax a third wider than long, densely punctate except in middle along the anterior margin, the punctures appearing coarser and more crowded on sides, lateral margin obtusely bitoothed, in some specimens almost undulate, an acute tooth at anterior and posterior angles, and a slight depression across the anterior part of disk over the occiput of head. Elytra in female densely and along sides

<sup>1</sup> Received April 30, 1945.

<sup>2</sup> *Genera des coléoptères* . . . 10: 250-251. 1874.

<sup>3</sup> *Eumolpidarum* . . . *Catalogus*. Mem. Soc. Liege, ser. 2, 11(16): 42. 1885.

<sup>4</sup> *Mitth. Münchener Ent. Ver.* 2: 124-126. 1878.

in basal half even rugosely punctate, with a group of raised warts or tubercles extending down from the humerus, gradually diminishing toward the middle, these rugosities varying in degree in various individuals. Humeri capped with an additional swelling. Punctures in basal half of elytra dense and confused, in apical half the punctures at first with a suggestion of geminate arrangement gradually straightening out into striate, single-lined punctation, finer and not so dense as in basal half. In the male the rugosities and tubercles entirely lacking and the punctation more regular. Body beneath reddish brown, finely pubescent, coxae well separated, anterior coxal cavities closed; prosternum not produced to conceal lower part of head but concave; legs with all the femora prominently and sharply toothed, punctate towards the apex; claws appendiculate. Length 3.9–4.3 mm in female: 3.3–3.4 mm in male; width 2–2.2 mm in female; 1.6 mm in male.

*Type material*.—Type male and 9 paratypes (7 female, 2 male), Museum of Comparative Zoology No. 27330; a pair in the U. S. National Museum, No. 57298.

*Type locality*.—Loma Vieja, ca. 6,000 feet altitude, south of Constanza, Dominican Republic, collected in August 1938 by P. J. Darlington, Jr.

#### *Alethaxius darlingtoni*, n. sp.

Fig. 6

Female 3–4 mm in length, elongate oblong, shining bronze with greenish luster above and with reddish brown antennae having the apices of distal joints darker, pale mouthparts, legs, and undersurface; densely punctate, prothorax with a smooth area in lower corner and with undulate margin; elytra with numerous tubercles on sides and more finely punctate toward apex; all femora with a prominent tooth.

Male 2.8–3.5 mm long, more greenish in luster, elytra without tubercles.

Head with prominent, nearly entire, widely separated eyes, interocular space more than half width of head, area about antennal sockets swollen, otherwise the front flat and broad, the central part being smoothly polished with radiating lines of punctures going up occiput and about eyes; mouthparts paler and heavy. Antennae at least half the length of body, longer in male, first two joints swollen, 3–6

slender and entirely pale, 7–11 thickened, the apices usually darker. Prothorax not twice as wide as long, with lateral margin undulate, an acute tooth at anterior and posterior angles, disk with a depression anteriorly, densely and coarsely punctate except near middle of anterior margin and near the sides at base, the punctures coarser and more crowded on sides. Elytra in female with many nodules along the sides, extending from the humeri to apical narrowing; at base punctures coarse, dense and confused; from the middle, striate, at first geminate, then in a single line to the apex and much finer. In male, no trace of tubercles, but as in female the humeri conspicuously swollen, the basal punctation coarse but not so dense as in female, and finely striate in apical half; not so costate toward apex as in other species. Body beneath deep reddish brown, legs paler, finely pubescent, all femora conspicuously toothed; tibiae grooved, first tarsal joint not much longer than second. Length of female 3.2–4.2 mm, width 1.6–1.9 mm. Length of male 2.8–3.5 mm, width 1.4–1.7 mm.

*Type material*.—Type male and 16 male and 17 female paratypes, Museum of Comparative Zoology No. 27331; a pair in the U. S. National Museum, No. 57299.

*Type locality*.—Loma Rucilla and mountains north, 5,000–8,000 feet altitude, Dominican Republic, collected in June 1938 by P. J. Darlington, Jr.

*Remarks*.—This species bears a close resemblance to *A. hispaniolae*. There are, however, on the elytra more nodules which extend farther down on the sides, and the prothorax has a smooth impunctate area on the sides. The male genitalia are quite unlike those of *A. hispaniolae*.

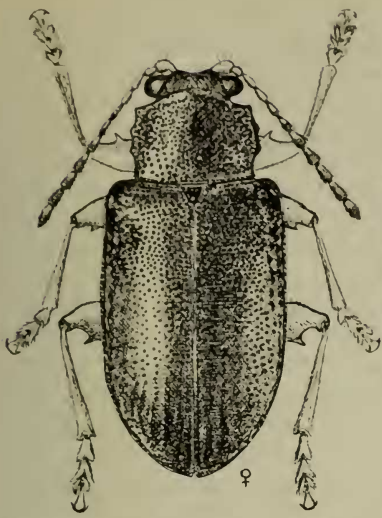
#### *Alethaxius integer*, n. sp.

Fig. 3

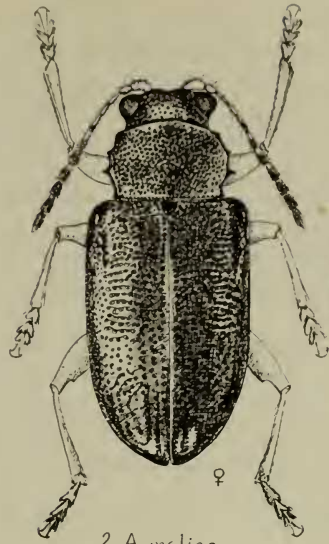
No females examined. Male 3 mm in length, oblong-oval, shining aeneous with pale yellow-brown antennae, legs, and undersurface, densely punctate, prothorax with rounded sides, all femora toothed.

Head with interocular space more than half width of head, polished, rather finely and not so densely punctate as in other species, a double row of punctures above the swollen areas around antennal sockets, a short median line on vertex, lower front mostly impunctate, and

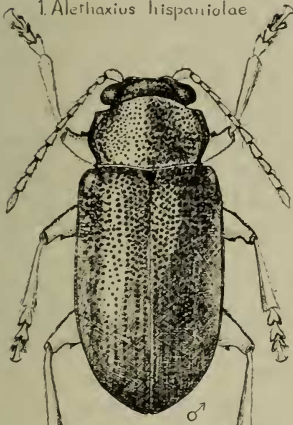




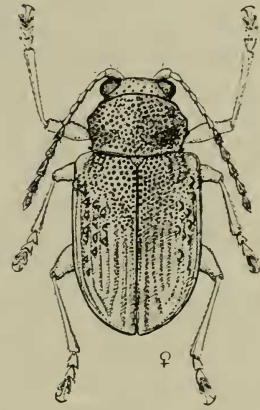
1. *Alethaxius hispaniolae*



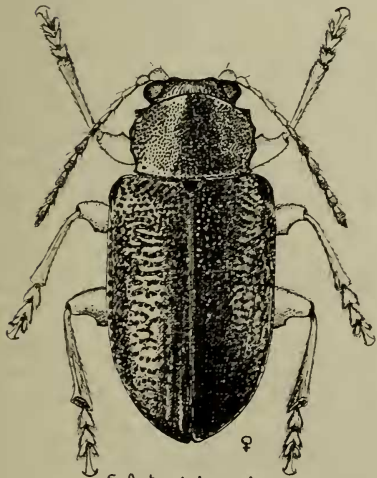
2. *A. meliae*



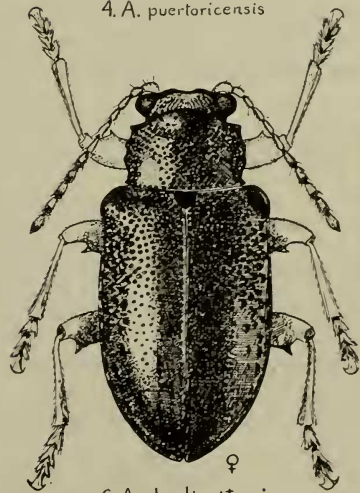
3. *A. integer*



4. *A. puertoricensis*



5. *A. turquinensis*



6. *A. darlingtoni*

FIGS. 1-6.—New species of *Alethaxius* from the West Indies.

losing its aeneous luster; eyes nearly entire and prominent. Antennae yellow-brown, not more than half the length of body, first two joints swollen, 3-6 slender, 7-11 thickened. Prothorax not twice as wide as long, moderately densely punctate, the punctures on sides becoming coarser, explanate margin not undulate or angulate with no suggestion of median tooth-ing, but rounded, a tooth at the basal angle. Elytra more coarsely punctate than pronotum, punctures very dense in basal half and somewhat coarser below humeri, in apical half becoming striate. Body beneath paler with light pubescence; femora all toothed, tibiae channeled, first tarsal joint not much longer than second, claws appendiculate. Length 3 mm; width 1.6 mm.

*Type*.—Male, Museum of Comparative Zoology No. 27332.

*Type locality*.—Mount Diego de Ocampo, Dominican Republic, 3,000-4,000 feet altitude, collected in July 1938 by P. J. Darlington, Jr.

*Remarks*.—I have examined only one specimen, a male, but have little doubt that the female will prove to be larger and probably with nodules or ridges along the sides. These are indicated in the male by the coarser, denser punctures in that area. Unlike any of the rest of the species here described, the prothorax has no sign of toothing or angularity but is simply arcuate. This exception to the general rule so far observed in the genus is proof that the toothing of the thorax as well as of the femora is a variable character. Otherwise the species is closely related to the two already described from the Dominican Republic. The aedeagus bears a strong resemblance to that of *A. hispaniolae*.

#### *Alethaxius turquinensis*, n. sp.

Fig. 5

Female 3.5-4 mm in length, bronzy or coppery with faint green or purple luster, mouthparts, antennae, legs, and undersurface pale reddish or yellowish brown; densely punctate, margin of prothorax undulate, elytra rugose, usually with raised tubercles along sides and at the apex costae between the striate punctation.

Male 3-4 mm in length, more brightly aeneous or purplish, elytra less rugose, lacking tubercles.

Head with interocular space half the width of head, eyes prominent, almost entire, area about antennal sockets swollen, front otherwise flat and broad with fewer punctures than on top and sides, the punctures becoming striate. Antennae at least half the length of body, basal joints paler, apices of distal joints tending to be dark, distal joints thickened. Prothorax about a third wider than long with undulate and sometimes angulate lateral margin, usually with two undulations and an acute tooth at anterior and posterior angle; punctation fine and very dense except along anterior and posterior margins. Elytra in female rugose with irregular transverse ridges, on outer half below the humeri elevated to form warty tubercles in many specimens, punctation denser and coarser than on pronotum, and toward apex becoming striate, the intervals between somewhat costate; humeri polished and prominent; in the male the elytra not so rugose but still with a suggestion of transverse ridging. Body beneath yellowish or reddish brown, lightly pubescent, a small but distinct tooth on all femora. Length, female, 3.6-4.3 mm; width 1.8-2.1 mm. Length, male, 2.9-4.1 mm; width 1.6-2 mm.

*Type material*.—Type male and 19 paratypes (12 male and 7 female), Museum of Comparative Zoology No. 27333; a pair in U. S. National Museum, No. 57300.

*Type locality*.—Pico Turquino, 5,000-6,000 feet altitude, collected by P. J. Darlington, Jr., in June 1936.

*Remarks*.—If we do not consider the tubercles in the females, this species is the most rugose of any of the West Indian group; likewise it is the dullest, the specimens showing little of the shining aeneous-green of the others, even in the males which are only slightly more lustrous. The punctures on the prothorax are the densest and finest found in any of the species.

#### *Alethaxius meliae*, n. sp.

Fig. 2

Female about 3.5 mm in length, elongate oblong, shining green or coppery, legs, some of undersurface, and six basal antennal joints pale yellow-brown, distal joints dark; densely punctate above; prothorax with two distinct median teeth on margin; elytra with a short



ridging or nodules below humeri and swollen costae at apex. Hind femora weakly toothed.

Male 3-3.5 mm in length, lacking ridges or nodules below humeri, the apical costation not so developed.

Head with prominent, widely separated eyes, interocular space a little more than half the width of head, eyes very little emarginate; area about antennal sockets swollen, otherwise the front flat, a short median line on vertex, this median space less punctate than about eyes and on occiput, the punctation becoming somewhat striate about eyes. Mouthparts pale brownish. Antennae at least half length of body in male, shorter in female; distal joints thickened and dark. Prothorax a third or less wider than long, densely punctate, the punctures on the sides becoming coarser, a little depression below anterior margin; sides with two acute teeth between the acute tooth on anterior and posterior angles. Elytra densely punctate in basal half, and finer and less densely in apical half, towards apex becoming striate with the interstices costate at apex, particularly swollen at the tip in the female and forming an apical tumidity; in the single female specimen examined a broken ridge or series of nodules running down below the humerus a short distance, this nodulation entirely lacking in male. Body beneath reddish or yellowish brown, with the sides of the prosternum and metasternum aeneous, the latter punctate; legs pale with punctures on femora becoming coarser and more apparent at apex; a distinct tooth on posterior femora; tibiae grooved. Length, female 3.6 mm; width 1.7 mm; length, male 3-3.5 mm; width 1.3-1.4 mm.

*Type material.*—Type male and 11 male and 1 female paratypes, U. S. National Museum No. 57301; 2 male paratypes in Museum of Comparative Zoology.

*Type locality.*—Villalba, Puerto Rico, collected on *Melia* sp. by R. G. Oakley, June 18, 1934.

*Remarks.*—This is the slenderest and the most densely punctate of the group from the West Indies. It is the only one with sharply produced teeth on the prothorax. The single female examined had only a short broken ridge or tubercles, not very conspicuous, on the elytra. Only the posterior femora are toothed. It is the most golden-green of the species here described and very lustrous.

***Alethaxius puertoricensis*, n. sp.**

Fig. 4

Female between 2.5-3 mm in length, oval, shining, yellow-brown, the distal joints of antennae and undersurface deep reddish brown; densely and coarsely punctate, the punctures of the elytra more or less striate, the interstices being somewhat costate, and on the sides several rows of warty elevations along costae, the humeri unusually prominent; thorax acutely angulate; femora not toothed.

Male unknown.

Head polished with numerous but not dense punctures, a line of them slightly above antennal sockets; interantennal area smooth, broad; front with a faint median vertical line; eyes widely separate, interocular space half width of head. Antennae reaching the middle of the elytra, first two joints swollen, 3-6 slender, 7-11 thickened and with darkened apices. Prothorax not twice as broad as long, depressed below the middle, margin with almost toothed angles near the middle, and a distinct basal tooth; disk densely and coarsely punctate. Elytra tending to be costate between the rows of punctures, the punctures at base somewhat confused, possibly geminate, becoming single striae at middle, on the sides the costae becoming warty, 4 or 5 rows of warts, and an enlarged hump on the humerus. Body beneath deep reddish brown, shining, lightly pubescent. Legs paler, femora not toothed, tibiae grooved on one side; first tarsal joint not much longer than second, claws appendiculate. Length 2.6-2.9 mm.; width 1.4 mm.

*Type material.*—Type female, Museum of Comparative Zoology No. 27334; 1 paratype, a female, in U. S. National Museum, No. 57302.

*Type locality.*—El Yunque, ca. 3,000 feet altitude, Puerto Rico, collected in May 1938 by P. J. Darlington, Jr.

*Remarks.*—This species is unlike the others described in this paper in coloration, being simply yellow-brown without any metallic luster, in being much smaller in size, and in lacking altogether any toothing of the femora. The general aspect of the head is unlike the rest. There are no swollen areas about the antennal sockets; the front of the face is smoother and not so punctate. Furthermore, the antennae are longer. In the pattern of its elytral punctation and wartiness it is very similar to the rest. Unfortunately, no male has been examined.